

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 1 and 4 and AMEND claims 2, 5, 7 and 8 in accordance with the following:

1. (Cancelled).

2. (Currently Amended) ~~The blind signal separation system according to claim 1, A~~  
blind signal separation system for separating plural source signals before mixture from mixture  
signals having said source signals mixed temporally and spatially, comprising:

signal input means for inputting said mixture signals;

signal storing means for storing said input mixture signals; and

signal separation means for extracting the mixture signals stored in said signal storing  
means and separating said source signals from said extracted mixture signals.

wherein said signal separation means formulates said extracted mixture signals as an operation expression using a basis matrix composed of plural small matrixes which consist of the bases with time symmetry around the time axis shifted, and calculates a mixture matrix to produce said mixture signals by mixing said source signals temporally and spatially, and estimates said source signals to be separated, using said operation expression and the learning algorithm based on said overcomplete representations.

3. (Original) The blind signal separation system according to claim 2, wherein said signal separation means calculates said mixture matrix and estimates said source signals to be separated by correcting a basis located in the middle column of said plural small matrixes in accordance with the learning algorithm based on said overcomplete representations when using the learning algorithm based on said overcomplete representations.

4. (Cancelled)

5. (Currently Amended) ~~The blind signal separation method according to claim 4, A~~  
blind signal separation method for separating plural source signals before mixture from mixture  
signals having said source signals mixed temporally and spatially, said method including:

inputting said mixture signals;

storing said input mixture signals; and

extracting the mixture signals stored at said signal storing step and separating said  
source signals from said extracted mixture signals.

wherein said ~~signal separation step~~extracting the mixture signals and separating said  
source signals includes formulating said extracted mixture signals as an operation expression  
using a basis matrix composed of plural small matrixes which consist of the bases with time  
symmetry around the time axis shifted, and calculating a mixture matrix to produce said mixture  
signals by mixing said source signals temporally and spatially, and estimating said source  
signals to be separated, using said operation expression and the learning algorithm based on  
said overcomplete representations.

6. (Original) The blind signal separation method according to claim 5, wherein said  
signal separation step includes calculating said mixture matrix and estimating said source  
signals to be separated by correcting a basis located in the middle column of said plural small  
matrixes in accordance with the learning algorithm based on said overcomplete representations  
when using the learning algorithm based on said overcomplete representations.

7. (Currently Amended) A blind signal separation program for enabling a computer  
to perform the blind signal separation method according to ~~claim 4, 5 or 6~~claim 5 or 6.

8. (Currently Amended) A recording medium that records the blind signal  
separation program for enabling a computer to perform the blind signal separation method  
according to ~~claim 4, 5 or 6~~claim 5 or 6.